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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,568	08/30/2001	John S. Erickson	1509-215	6171

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EXAMINER

BACKER, FIRMIN

ART UNIT	PAPER NUMBER
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3621

DATE MAILED: 12/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/941,568

Applicant(s)

ERICKSON ET AL.

Examiner

Firmin Backer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This is in response to a letter for patent filed on August 30<sup>th</sup>, 2001 in which claims 1-10 are presented for examination. Claims 1-10 are pending in the letter.

#### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 1 recites the limitation "the output, the clause, the status" in paragraph 1 line 1, 3 and 6 respectively. There is insufficient antecedent basis for this limitation in the claim.
4. Claim 3 recites the limitation "the computer language" in line 1. There is insufficient antecedent basis for this limitation in the claim.
5. Claim 4 recites the limitation "the virtual contracts, the wishes or intentions" in line 2. There is insufficient antecedent basis for this limitation in the claim.
6. Claim 5 recites the limitation "the form" in line 2. There is insufficient antecedent basis for this limitation in the claim.

7. Claim 7 recites the limitation "the occurrence" in line 3. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 9 recites the limitation "the clauses" in line 3. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 10 recites the limitation "the occurrence, the information, the output" in line 2, 3, 4 respectively. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 101***

10. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11. Claim 9 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete and tangible result.

For a claimed to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" and therefore are found to be non-statutory subject matter. For a method claim to pass the muster, the recited method must somehow apply, involve, use, or advance the technological arts.

In the present case the inventive concept in claim 9 only recites an abstract idea. The recited creating a state machine representative of the contract .. etc. does not apply, involve, use or advance the technological arts since all the steps can be performed in the mind of the user or by use of pencil and paper and no specific technology (e.g. computer, processor) is expressly recited in the body of the claims. *In re Toma (CCPA 197 USPQ 852 (1978))*.

Although the recited method produces a useful, concrete and tangible result, since the claimed invention, as a whole, it not within the technological arts as explained above, claim 9 deemed to be directed to non-statutory subject matter.

***Claim Rejections - 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Conant et al (U.S. PG Pub. No. 2002/0129056).

14. As per claims 1, 9 and 10, Conant et al teach an apparatus for determining the output of a contract or agreement at any point in time as required, comprising means for creating a state machine representative of the contract or agreement at least some of the clauses and/or

conditions of the contract or agreement being represented as a respective state variable of the state machine, means for storing the state machine, means for receiving data representative of one or more events relevant to the contract or agreement, determining whether the event changes the status of the state machine and changing the status of the state machine if required (*paragraphs 0004, 0006, 0025, 0036, 0037. 0040, 0043, 0047, 0056*).

15. As per claims 2, Conant et al teach an apparatus comprising means for storing a plurality of state machines, each representative of a respective contract or agreement, the output of each the contract or agreement being determinable concurrently as required (*paragraphs 0004, 0006, 0025, 0036, 0037. 0040, 0043, 0047, 0056*).

16. As per claims 3, Conant et al teach an apparatus wherein the computer language used to realise the apparatus is an object-orientated computer language, such that the output of a contract state machine object are assertions that the object makes to other objects or systems (*paragraphs 0004, 0006, 0025, 0036, 0037. 0040, 0043, 0047, 0056*).

17. As per claims 4, Conant et al teach an apparatus including software components or systems which receive the output assertions of the virtual contract, and determine and implement the "wishes" or "intentions" of the contracts, as required (*paragraphs 0004, 0006, 0025, 0036, 0037. 0040, 0043, 0047, 0056*).

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18. As per claims 5, Conant et al teach an apparatus comprising a kernel including means for storing a plurality of contract or agreements in the form of state machines, means for receiving information regarding events relevant to one or more of the contracts or agreements, and means for changing the state of one or more of the state machines as required according to the event (*paragraphs 0004, 0006, 0025, 0036, 0037. 0040, 0043, 0047, 0056*).

19. As per claims 6, Conant et al teach an apparatus comprising an event queue which accommodates "external" and "internal" events (*paragraphs 0004, 0006, 0025, 0036, 0037. 0040, 0043, 0047, 0056*).

20. As per claims 7, Conant et al teach an apparatus wherein if the state of a contract or agreement is not changed for a predetermined period of time, the contract is persisted to storage means to await the occurrence of one or more events which effect its behaviour or output (*paragraphs 0004, 0006, 0025, 0036, 0037. 0040, 0043, 0047, 0056*).

21. As per claims 8, Conant et al teach an apparatus wherein upon initialisation, virtual contracts are registered with a virtual contract manager such that they can subscribe to events that affect their behaviour to output at any given time (*paragraphs 0004, 0006, 0025, 0036, 0037. 0040, 0043, 0047, 0056*).

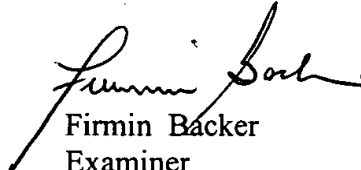
***Conclusion***

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. (*see form 892*).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Firmin Backer whose telephone number is (703) 305-0624. The examiner can normally be reached on Mon-Thu 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on (703) 305-9768. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

  
Firmin Backer  
Examiner  
Art Unit 3621

December 8, 2003